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INTERIM GUIDELINES
ON
ENVIRONMENTAL ASSESSMENT
PLANNING AND APPROVALS



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INTERIM GUIDELINES ON
ENVIRONMENTAL ASSESSMENT PLANNING AND APPROVALS

Environmental Assessment Branch

JULY 1989



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M.O.E. Policy Manual

POLICY TITLE ENVIRONMENTAL ASSESSMENT PLANNING AND APPROVALS	NO 03-04-01
<u>Legislative Authority</u> The Environmental Assessment Act	
<u>Statement of Principles</u> The Environmental Assessment Act is intended to provide for the protection, conservation and wise management of the environment through planning and informed decision-making. The policy provides guidance to proponents and affected parties on the requirements of the EA Act and key features of environmental assessment. <u>Definitions</u> 'The proponent' is the organization responsible for the planning and implementation of the undertaking. 'Affected parties' are any members of the public or public interest groups with an interest in the undertaking as well as government reviewers.	
<u>Point of Contact</u> Director, Environmental Assessment Branch	
<u>Effective Date</u> June 20, 1989	

Statement of Principles (Continued)

Introduction

This policy describes the five features which are the key to successful planning under the EA Act. Before commencing planning, a proponent should review the accompanying "Interim Guidelines on Environmental Assessment Planning and Approvals". The guidelines explain the requirements of the EA Act and discuss how the five key features can be incorporated in the planning process and preparation of the EA. Information is also provided on the approval process under the EA Act. These interim guidelines may be revised in 1990 as a result of the Environmental Assessment Program Improvement Project.

Information relating to consultation with affected parties may also be found in the Ministry of the Environment policy Pre-Submission Consultation in the EA Process 3.03 and its associated Guidelines on Pre-Submission Consultation in the EA Process.

1. Policy Objectives

- i) To describe EA Act requirements and its basic concepts and principles.
- ii) To assist the proponent in carrying out planning and in documenting that planning to meet EA Act requirements.
- iii) To encourage the proponent to identify and resolve issues, to the extent possible, before an EA is formally submitted.
- iv) To promote an effective EA process.
- v) To help reduce the time involved in the formal approvals process.

2. Features of Environmental Assessment

The EA Act is about good planning. There are five features which are key to successful planning under the EA Act. These features are:

- consult with affected parties;
- consider reasonable alternatives;

Statement of Principles (Continued)

- consider all aspects of the environment;
- systematically evaluate net environmental effects;
- provide clear, complete documentation.

2.1 Consult with Affected Parties

Make the planning process a cooperative venture with affected parties. Early consultation with affected parties is essential.

The proponent should seek to involve all affected parties as early as possible so that their concerns can be identified and addressed before irreversible decisions and commitments are made on the chosen approach or specific proposals. To achieve this, the planning process must be constructed around the involvement and contributions of affected parties. This approach has a number of benefits which include:

- improving the understanding of environmental concerns before the undertaking is selected and focusing the proponent's planning on matters of concern;
- encouraging the identification and resolution of issues, to the extent possible, before an EA is formally submitted which contributes to reducing the time for the formal approvals process;
- promoting mutually acceptable, environmentally sound solutions by developing positive relationships among those involved in consultation.

2.2 Consider Reasonable Alternatives

A reasonable range of alternatives must be considered.

Statement of Principles (Continued)

The planning must consider: 'alternatives to' the undertaking, which fulfill the purpose of the undertaking in functionally different ways, and 'alternative methods' of implementing a particular type of alternative. The 'do nothing' alternative must also be considered.

2.3 Consider All Aspects
of the Environment

Identify and consider the effects of each alternative on all aspects of the environment.

The planning process must consider not only effects on the natural or biophysical environment but also effects on "the social, economic and cultural conditions that influence the life of man or a community" and their inter-relationships as well as technical considerations.

2.4 Systematically
Evaluate Net
Environmental Effects

Explicitly evaluate alternatives in light of their advantages and disadvantages developed through a net effects analysis.

The planning process must include distinct points where alternatives are evaluated and the net environmental effects (effects remaining after mitigation or enhancement has been addressed) associated with each alternative are clearly identified.

Decision making should be phased, narrowing progressively to a preferred alternative. This results in a process where alternatives may be eliminated from consideration at different points in planning. Decisions on what type or combination of alternatives are preferred are generally made earlier in the planning process and more detailed decisions on how to implement the preferred alternatives made later.

Statement of Principles (Continued)2.5 Provide Clear,
Complete Document-
ation

The process must recognize the dynamic nature of environmental decision making. In particular, it must be sensitive to changing conditions and new information and flexible enough to deal with them. This approach, if carried out effectively, results in identifying a preferred alternative which has a thorough and rational justification for environmental approval.

The EA should strive both to represent accurately the process that was followed in a clear and understandable way and to communicate the results of that process. The approach, the planning process followed and the way in which the principles of environmental assessment were addressed should be clearly explained in the EA. This can be termed "traceability". Clarity and simplicity are objectives as well as completeness and precision.

3. Implementation

This policy will be implemented by the Ministry of the Environment during pre-submission consultation and the formal approvals process. As Ministry policy it provides the basis for MOE advice during pre-submission consultation and for the evaluation of the planning process in the Government Review. The Government Review is one of the factors the Minister or Board must consider in deciding if the EA is acceptable and the undertaking should be approved.

INTERIM GUIDELINES ON
ENVIRONMENTAL ASSESSMENT PLANNING AND APPROVALS

Environmental Assessment Branch
Ministry of the Environment
Ontario

FEBRUARY 1989

NOTE

The Ministry of the Environment has established an Environmental Assessment Program Improvement Project (EAPIP) for the purpose of updating and improving the EA program. The interim guidelines may be revised in 1990 as a result of the Program Improvement Project.

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1.0 INTRODUCTION

These Guidelines explain the requirements of the Environmental Assessment Act (the Act) and its basic concepts and principles. The Act is intended to provide for the protection, conservation and wise management of Ontario's environment through good planning and informed decision-making.

These Guidelines reflect current practices in the administration of the Act and interpretations of the Act made by the Ministry of the Environment and by boards in environmental assessment hearings. While these Guidelines interpret the legal framework of environmental assessment, they are for advisory purposes only. In the case of any conflict or doubt, the wording of the Environmental Assessment Act and the regulations made under its authority will prevail.

The Guidelines are divided into five parts:

- ° Part 1 - Introduction explains the purpose of the EA Act and which projects are subject to EA.
- ° Part 2 - Key Features of Environmental Assessment Under the EA Act outlines the features upon which the EA planning should be based.
- ° Part 3 - The Planning Process describes the kind of planning process which will satisfy the intent and requirements of the Act.
- ° Part 4 - The Environmental Assessment Document describes the documentation requirements set out in the Act.
- ° Part 5 - The Approval Process describes the formal approval process for an Environmental Assessment submission.

Information on a particular project or general matters not addressed in the guidelines can be obtained from the Environmental Assessment Branch at (416) 440-3450, or the local District or Regional Office of the Ministry of the Environment.

The Guidelines are updated and revised from time to time as experience is gained with the administration and interpretation of the Act. The Guidelines focus specifically on the planning and approval of individual undertakings. Class environmental assessments are briefly discussed in Section 1.1 of the Guidelines. Further information on class environmental assessments can be obtained from the EA Branch.

Suggestions for further revision and clarification of these Guidelines are welcome and should be sent to the Director, Environmental Assessment Branch, Ministry of the Environment, 250 Davisville Avenue, 5th Floor, Toronto, M4S 1H2. The Ministry of the Environment has established an Environmental Assessment Program Improvement Project (EAPIP). All comments or suggestions received will be forwarded to EAPIP for consideration as part of the project.

1.1 Purpose of the Act

The purpose of the Act is "... the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management of the environment" through good planning and informed decision making. There are three basic requirements of the Act which are central to achieving this:

- ° the potentially affected environment, which includes the natural, social, economic, cultural and technical components of the environment (section 1(c)) must be considered);
- ° the advantages and disadvantages of the undertaking and alternatives including the 'do nothing' alternative must be evaluated (section 5(3));
- ° government ministries and agencies and the public have an opportunity to provide comment to the Minister of the Environment before the decisions on whether the EA is acceptable and the undertaking should be approved are made (section 7);

In summary, good planning and informed decision making are essential. These guidelines explain the features of environmental assessment and how they should be applied in planning.

1.2 Which Projects are Subject to Environmental Assessment?

A project to which the Act applies is termed an 'undertaking', broadly defined in Section 1(o) of the Act as

"undertaking", means,

- (i) an enterprise or activity or a proposal, plan or program in respect of an enterprise or activity by or on behalf of Her Majesty in right of Ontario, by a public body or public bodies or by a municipality or municipalities, or
- (ii) a major commercial or business enterprise or activity or a proposal, plan or program in respect of a person or persons other than a person or persons referred to in subclause (i) that is designated by the regulations.

In general the Act applies to all provincial or municipal (public) undertakings and to specifically designated types of private projects. (See Appendix for further information on municipal and conservation authority projects.) Certain public undertakings may be exempted from the Act, (e.g., ongoing maintenance and spill cleanup activities) while certain private undertakings may be specifically designated as subject to the Act (e.g., energy from waste plants over 100 tonnes per day burning municipal waste, landfills over 40,000 M³ in volume). The Environmental Assessment Branch can provide advice on whether a particular undertaking would be subject to the Act.

It is important to clarify whether or not the Act applies as soon as a problem or opportunity is identified, since projects subject to the Act may not proceed until an Environmental Assessment has been submitted and accepted, and the undertaking has been formally approved. This also assists proponents who are subject to the Act to develop a planning process which will satisfy the requirements of the Act.

1.3 Individual and Class Environmental Assessments

An undertaking can be either an individual undertaking or a class of undertakings. An individual EA specifies the time and place where the undertaking is to be carried out. A Class EA does not normally specify the time(s) and place(s) where projects within the Class will be carried out.

Individual Environmental Assessments

An undertaking may be either a single project or several distinct activities that may or may not be similar in nature. For example, two separate but associated highways dealt with as one proposal could be similar projects within a single undertaking. As well, a flood control dam, downstream channelization, and bank stabilization works would represent dissimilar projects within a single undertaking.

The typical individual environmental assessment includes a description of the alternatives that were considered, their net environmental effects and advantages and disadvantages, an explanation of why the project was chosen, as well as a more detailed description of the project for which approval is requested and its net effects, a project design, a location for the project, and a preliminary construction schedule. The review and approval process specified in the Act must be carried out before final approval is granted to implement the proposed undertaking (project).

Class Environmental Assessments

An approved Class EA provides a series of planning requirements, usually streamlined and standardized, for use solely with that particular group of projects. Among those standard requirements, the following are crucial:

- ° a definition of the situation (e.g. discovery of unanticipated environmental effects, significant public controversy) that, if encountered during project planning in the Class EA process, might cause the project to be disqualified as a class project and

'bumped up' to an individual undertaking subject to normal individual EA planning, review and approval procedures

- ° how affected parties (including the public) are informed and are able to participate in planning
- ° the required content of the study report to be produced by the proponent for each project, presenting the basis of the decision to proceed with the project.

With approval of a Class EA in the usual manner as an individual EA, any project falling within the class has an approval under the Act if the approved environmental planning process described in the Class EA, is followed.

Preparation of a Class EA may be initiated in response to a specific proposal or it may simply be carried out without any specific current project intentions. The decision to proceed on the basis of a Class EA is really determined by whether such projects are likely to recur frequently.

2.0 FEATURES OF ENVIRONMENTAL ASSESSMENT

There are five features which are key to successful planning and approval under the Act. These five features will be evaluated in the Government Review of an EA.

These features are:

- consult with affected parties
- consider reasonable alternatives
- consider all aspects of the environment
- systematically evaluate net environmental effects
- provide clear, complete documentation.

2.1 Consult with Affected Parties

Make the planning process a cooperative venture with affected parties. Early consultation with affected parties is essential.

The proponent should seek to involve all affected parties as early as possible so that their concerns can be identified and addressed before irreversible decisions and commitments are made on the chosen approach or specific proposals. To achieve this, the planning process must be constructed around the involvement and contributions of affected parties. The benefits include:

- improving the understanding of environmental concerns before the undertaking is selected and focusing the proponent's planning on matters of concern
- encouraging the identification and resolution of issues before an EA is formally submitted to reduce the time involved for the formal approvals process
- promoting mutually acceptable, environmentally sound solutions.

2.2 Consider Reasonable Alternatives

A reasonable range of alternatives must be considered.

The planning must consider: 'alternatives to' the undertaking, which fulfill the purpose of the undertaking in functionally different ways, and 'alternative methods' of implementing a particular type of alternative. The 'do nothing' alternative must also be considered.

2.3 Consider All Aspects of the Environment

Identify and consider the effects of each alternative on all aspects of the environment.

The planning process must consider not only effects on the natural or biophysical environment but also effects on "the social, economic and cultural conditions that influence the life of man or a community" and their inter-relationships. The level of detail will vary depending primarily on the significance of the effect and the stage in the study process.

2.4 Systematically Evaluate Net Environmental Effects

Explicitly evaluate alternatives in light of their advantages and disadvantages developed through a net effects analysis. The planning process must include distinct points where alternatives are evaluated and the net environmental effects (effects remaining after mitigation or enhancement has been addressed) associated with each alternative are clearly identified.

Decision-making should be phased, narrowing progressively to a preferred alternative. This results in a process where alternatives will be eliminated from consideration

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Decision-making should be phased, narrowing progressively to a preferred alternative. This results in a process where alternatives will be eliminated from consideration

at different points in planning. Decisions on what type or combination of alternatives are preferred are generally made earlier in the planning process and more detailed decisions on how to implement the preferred alternatives made later.

The process must recognize the dynamic nature of environmental decision making. In particular, it must be sensitive to changing conditions and new information and flexible enough to deal with them. This approach, if carried out effectively, results in identifying a preferred alternative which has a thorough and rational justification for environmental approval.

2.5 Provide Clear Complete Documentation

The EA should strive both to represent accurately the planning process that was followed in a clear and understandable way and to communicate the results of that process.

The written description of the planning process and its results is the EA document, commonly known as "the EA". The planning process followed and the way in which the principles of environmental assessment were addressed should be clearly explained in the EA. This can be termed "traceability". Clarity and simplicity are objectives as well as completeness and precision.

Information on how these features can be incorporated in the planning process and the preparation of the EA is provided in Chapters 3 and 4 of these Guidelines. Information relating to consultation with affected parties may also be found in the Ministry of the Environment policy Pre-Submission Consultation in the EA Process and the accompanying Guidelines on Pre-Submission Consultation in the EA Process.

3.0 THE PLANNING PROCESS

In this Chapter, the planning process is explained from the viewpoint of helping a proponent to produce the information required to proceed through the planning and the review and approval steps. It is essential to document and retain all relevant information concerning the criteria, decision making, and other matters relating to the evaluation and selection of alternatives and consultation with affected parties. Figure 1 sets out the planning framework.

3.1 Statement of Purpose

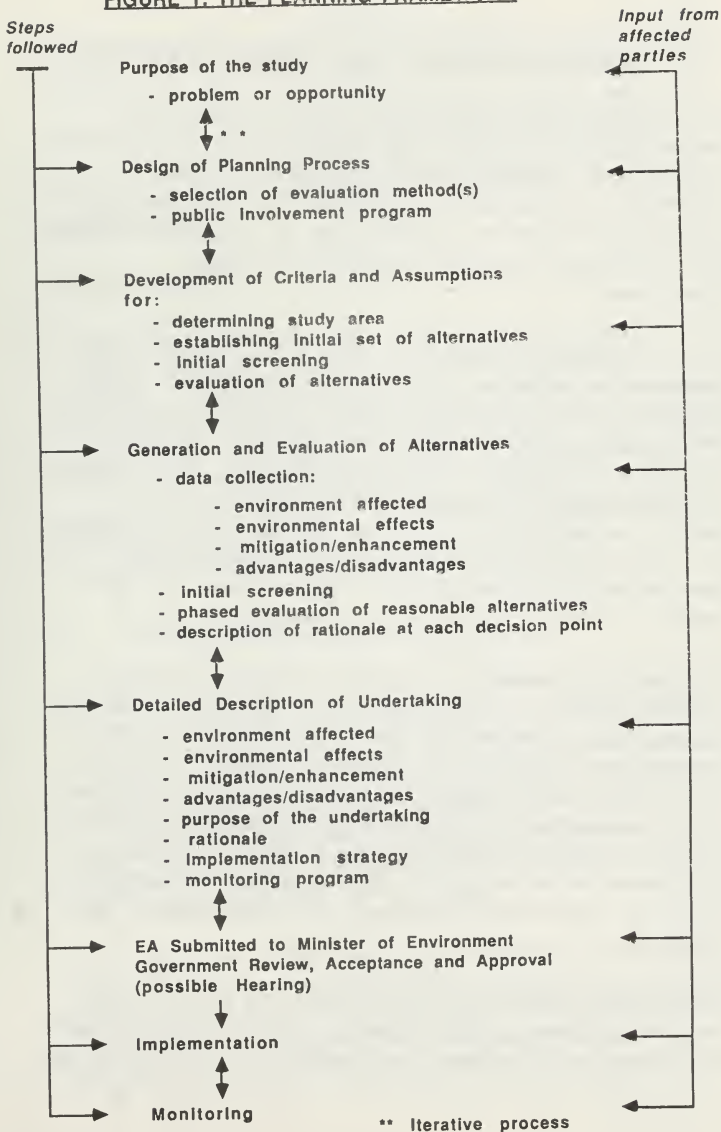
Planning begins with a statement of purpose: a statement of the problem or opportunity which is being addressed.

The purpose is what the proponent is trying to achieve. The possible solutions and criteria for evaluating them must not be included in the purpose statement.

In stating the purpose, it is important that the definition is broad enough to allow a reasonable range of alternatives to be considered in planning. During the planning process, the purpose statement may be clarified or changed as a result of new information. It is important to document the changes to the purpose and the reasons why it has changed.

At the end of the planning process, the proponent should define the purpose of the preferred alternative, the undertaking more specifically and in greater detail.

FIGURE 1: THE PLANNING FRAMEWORK



3.2 Systematic Evaluation of Net Environmental Effects

The analysis of net effects has become an important feature of EA in Ontario. Net effects analysis sets out the planning framework which integrates other key components of EA planning, including the broad definition of environment and the consideration of alternatives which are discussed in Sections 3.4 and 3.5 of these Guidelines.

Net environmental effects are defined as the remaining environmental effects, both positive and negative after reasonable ways to minimize negative effects (mitigation) and increase positive effects (enhancement) have been considered and incorporated as appropriate. It is these net environmental effects, which represent what is actually expected to occur if an alternative is carried out. They are used to determine the advantages and disadvantages of alternatives. Figure 1 sets out a general framework for net effects analysis.

The planning framework is based on a phased sequence of decision making, with distinct points in the planning process where alternatives are evaluated on their net environmental effects, and either rejected or carried forward for further study. This can result in a process where alternatives are eliminated from consideration at different points in planning. Some alternatives may be eliminated on the basis of a less detailed evaluation of their net effects and advantages and disadvantages, than others.

In the early stages of planning, when the precise size, location or phasing of alternatives are not known, it may be appropriate to present less detailed information on the

net environmental effects. As the number of alternatives decreases, it may become more difficult to differentiate between their relative advantages and disadvantages required to reach decisions. Precisely what level of detail is required depends on the specific circumstances and the opinions of the proponent, government, the public and the Board.

Level of Detail

The decisions which are made on the level of detail will influence the study approach and the information collected. It should be addressed early, and input sought from government and the public since different parties may have different opinions on the level of detail needed to differentiate between alternatives. During the formal approvals process the level of detail may be questioned and a proponent may be required to provide more information. Figure 2 addresses the level of detail.

3.3 Determining Reasonable Alternatives

The issue of what constitutes a reasonable range of alternatives to consider is a difficult one. It is important to consult affected parties early in the planning process before decisions are made to exclude certain alternatives which may appear reasonable. However, the decision on what constitutes a reasonable range of alternatives remains the proponent's responsibility, subject to approval by the Minister or the Board.

In any situation, there may be many different ways to address the problem or opportunity. An initial screening of these alternatives helps a proponent to decide which alternatives are reasonable and therefore have merit in the particular case. The proponent should include

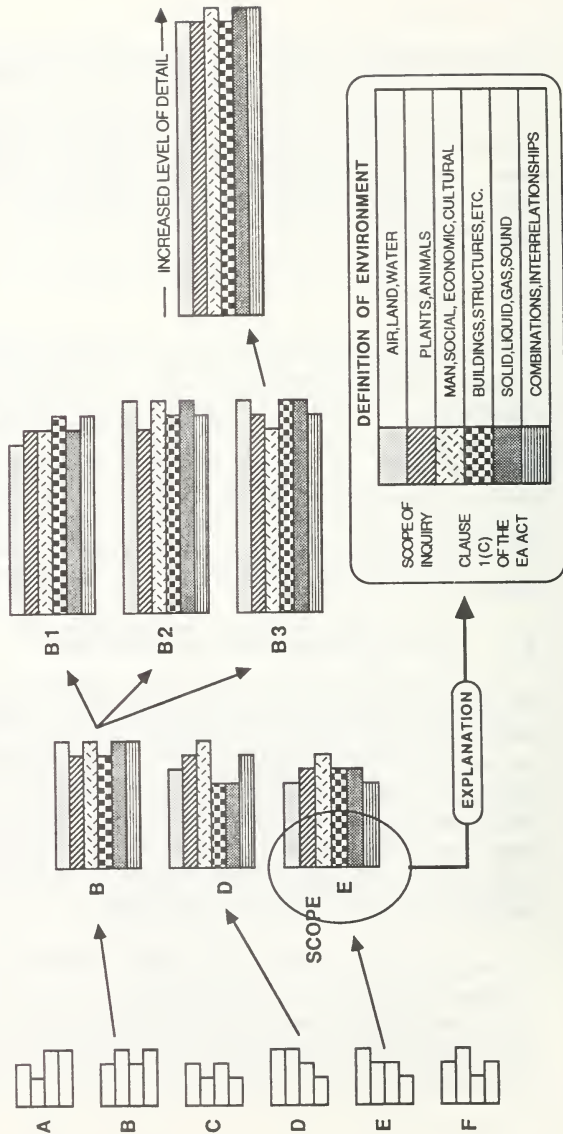
FIGURE 2:

LEVEL OF DETAIL OF EXAMINATION OF ALTERNATIVES IN A PARTICULAR STUDY

THE PREFERRED
ALTERNATIVE
(UNDERTAKING)

IDENTIFICATION
AND INITIAL
SCREENING OF
ALTERNATIVES

EVALUATE ALTERNATIVES THROUGH INCREASING LEVEL OF DETAIL, NARROWING TO:



functionally different ways of addressing the problem or opportunity at the outset to ensure that both kinds of alternatives required by the Act are considered (see Section 3.4 of these guidelines for a discussion of functionally different alternatives).

It is important to clearly explain the way in which the initial set of alternatives was determined including the criteria and assumptions which were used. Since some alternatives may be found to be unreasonable and therefore, eliminated on the basis of one or more outstanding negative features, it is important that these negative features be clearly explained.

Documenting the results of the initial screening helps all participants to understand the judgements which were made to determine which alternatives were considered reasonable to carry forward.

3.4 Alternatives

After carrying out an initial screening, a proponent should have determined which alternatives are to be studied further.

a) The Two Types of Alternatives

Consideration of two types of alternatives is required by the Act: alternatives to the undertaking and alternative methods of carrying out the undertaking. The do nothing alternative must also be considered.

Alternatives to the undertaking are functionally different ways of approaching and dealing with a problem or opportunity. Alternative methods of carrying out the undertaking are different ways of doing the same activity.

A series of examples of the distinction between the two kinds of alternatives follow for several types of activities. The Ministry is not suggesting that these are the only alternatives which should be considered. Which alternatives to be considered is determined on a case-by-case basis by the proponent, taking into account the specific circumstances and the views of ministries and agencies and the public.

Waste Management Example

In the waste management field, a number of functionally different alternatives exist. These include waste export, incineration and the 4 Rs: recycling, reuse, reduction, and recovery, including energy from waste.

In each of these cases, there are different methods of carrying out a particular alternative. For example, for a landfill alternative, these methods could include landfills at different locations, or of different sizes or those of different engineering design (i.e., synthetic liner or natural attenuation).

Transportation Example

Functionally different alternatives could include new or improved public transit, rail service, air service or incentives to reduce traffic and new or improved roads.

For a road alternative, the alternative methods could include improvements to existing roads, construction of a new road, different road types and different road alignments.

Energy Example

Functionally different alternatives could include transmission of energy, generation (the production of new energy), and conservation (the reduction of demand for energy).

For a transmission alternative, the methods could include different locations, line voltages, tower design and various ancillary facilities.

b) The Do Nothing Alternative

The do nothing alternative represents what is expected to happen if none of the alternatives being considered are carried out and should be considered by the proponent in all cases. Normal on-going maintenance or improvements should be included as part of the 'do nothing' alternative.

The consideration of the 'do nothing' alternative assists all participants by providing a benchmark against which the consequences of the alternatives can be measured. A clear presentation of the 'do nothing' alternative also assists the Minister of the Environment or the Board in deciding whether the undertaking should be approved (see Section 3.8).

c) Flexibility

While the Act requires that two types of alternatives be considered, it should be noted that there is some flexibility. Public sector proponents will normally find that the set of alternatives arising from the initial

screening includes the two types of alternatives required by the Act. This is because of the relatively broad mandate of the public sector for addressing problems or opportunities.

However, in some instances, particularly for private sector proponents, the set of alternatives arising from initial screening may not include the two kinds of alternatives set out in the Act.

The Minister of the Environment, in his statement on the application of the EA Act to private sector Energy from Waste (EFW) recognized that the private sector faces certain constraints in meeting the requirements of the Act in the same manner as public sector proponents. The Minister indicated that in administering the Act for private sector EFW proposals, these limitations would be taken into consideration. The Minister's statement is in Appendix D to these guidelines.

Proponents who find themselves in this situation should pay special attention to defining and describing the problem or opportunity being addressed, their mandate (or market sector), the functions of the undertaking, and the initial screening which was carried out.

Excerpts from the Joint Board decision on a Resource Recovery Facility proposed by SNC Inc. in the Regional Municipality of Peel may be found in Appendix E. These excerpts relate to the interpretation of the Act.

Decisions on what is an acceptable range of alternatives are, however, made on a case-by-case basis, and consider the mandate or market sector of the proponent, the alternatives which were examined, the problem or

opportunity being addressed, the function(s) of the undertaking, the views of affected parties, and other relevant information. It is imperative that where a proponent believes that the set of alternatives will not include the two kinds required by the Act, early contact be made with the EA Branch to discuss the set of reasonable alternatives.

In the final analysis, decisions made by the proponent on which alternatives to consider may be questioned by the Minister, the Board where a hearing is required, and/or any affected party. The proponent may be required to provide further information. Delays in the approval process can be avoided by ensuring that appropriate information concerning alternatives, including those initially screened out as unreasonable, is obtained in planning and documented in the EA.

3.5 Environmental Criteria and Evaluation Methods

a) Environmental Criteria

Proponents should ensure that the environmental criteria they employ for evaluating alternatives include all components of the environment specified by the Act. These are the social, cultural, technical, economic and natural components of the environment. Government ministries and agencies and the public wherever possible, should be asked for their comments on the proposed criteria.

The reasons for selecting the criteria should be clearly defined and explained. This will help all affected parties to understand the judgements which were made and allow them to participate more effectively.

Wherever possible, the same set of criteria should be used as the framework for the entire evaluation process. The level of detail in which alternatives are evaluated will normally increase as a proponent proceeds through the planning process. As more information is acquired on the likely net environmental effects and on the areas of specific concern to affected parties, it may result in more detailed criteria and produce changes in the criteria. The changes which were made and the reasons for them should be documented for inclusion in the EA.

b) Evaluation Methods

The EA Act does not require a specific method or methods for predicting and evaluating net effects, advantages and disadvantages of alternatives and the undertaking. Different methods will be appropriate for different types of projects and different proponents.

It is important, however, that a proponent establish one or more methods for predicting and evaluating net environmental effects. These should be clearly described and government ministries and agencies and the public should be asked for their comments early in the planning process, wherever possible.

In many cases, choosing between alternatives is the most difficult part of planning. In choosing methods for predicting net environmental effects and evaluating advantages and disadvantages, proponents are advised to select methods which will clearly identify relative differences and key impacts to make the trade-offs involved in selecting the undertaking clear.

3.6 Data Collection and Evaluation

a) Environment Affected

Once environmental criteria and methods for predicting and evaluating the net environmental effects of alternatives are established, a proponent collects information about the environment affected.

The study area for each alternative, or for each component of the environment, may vary depending on the alternative itself and the geographic extent of the environmental effects. It is important to clearly describe how and why the boundaries of the overall study area and the study area for each alternative and/or effect were chosen. The boundaries themselves should be clearly identified. Maps can help in presenting this information.

The description of the environment affected should consider all components of the environment. The existing and expected future conditions within the study area(s) are described. In discussing future conditions, proponents should recognize that the environment is not static and should describe activities which would occur in any event.

The amount of information which is available will often vary. Proponents should identify the methods of data collection and data sources, as well as any identified data gaps and their significance, and actions taken to address data gaps.

b) Environmental Effects

In evaluating alternatives, the environmental effects of each alternative on all components of the environment must be identified and described.

Effects can be positive or negative, direct or indirect. The method that was used to predict environmental effects should be clearly described and documented in the EA. Both positive and negative environmental effects should be presented in the EA to provide a balanced picture of the likely environmental effects.

Where the environmental effects are uncertain, proponents should explain why and fully explain the factors that cause the problem and how it has been addressed in the evaluation. For example, a proponent may not be able to precisely predict the effect because a new process or technology is being proposed. In this case, the proponent should discuss why the effect may vary, identify the expected range of effects, and the level of certainty of these predictions.

Environmental effects are also either direct or indirect. Direct effects are usually the immediate effects which can be attributed specifically to the building and/or operation of an alternative.

In addition to the direct effects of implementing a particular alternative, indirect effects may also result. Wherever reasonable, proponents should also identify and evaluate the indirect and cumulative effects of alternatives.

The proponent should concentrate on information which is likely to be of key significance. The data base need only contain that amount of information sufficient to allow the net environmental effects to be described in an appropriate level of detail.

Where a proponent determines that one or more components of the environment will not be affected, this conclusion, as well as the way in which it was reached, must be documented.

Government ministries and agencies and the public can provide valuable input on both the range of effects to be considered and what level of detail they consider to be appropriate.

c) Mitigation/Enhancement Measures

The EA Act requires a proponent to describe the actions necessary to "prevent, change, mitigate or remedy" the environmental effects of the undertaking and the alternatives. Mitigation measures reduce or avoid negative effects, while enhancement measures increase the positive effects.

These measures can be addressed in a variety of ways depending on the stage in the planning process and the significance of the expected environmental effect. For example, in the early stages of planning or where the effect is common for all alternatives, general types of mitigation measures can be considered.

A proponent might, for example, decide that a landscaped buffer zone would be provided for all alternative landfill sites to reduce the negative visual effects without specifying the location or dimensions of the buffer zone. This information will, however, be required for the undertaking.

Prevention or avoidance of environmental effects should also be considered.

In later stages of the planning process when the alternatives are more fully developed or where the effect is significant or site specific, the proponent should provide more detail on the environmental effects and mitigation or enhancement measures.

Where mitigation is either not necessary because of the nature of the effect or is not reasonably available, the requirements of the Act can be met by discussing in the EA how and why this was determined.

Where a variety of mitigation or enhancement measures are available, the relative merits of each should be considered through consideration of their cost and effectiveness including any environmental effects they themselves may give rise to.

In some cases, the consideration of mitigation could change the alternative which is preferred. For example, in choosing between alternatives A and B on the basis of gross environmental effects, Alternative A, appears to have much more significant effects than the Alternative B.

If a decision was made at this point, Alternative B would be selected. If however, ways to mitigate negative environmental effects and enhance positive effects are considered, the preference may be reversed.

d) Tradeoffs, Value Judgements and Consultation

Because of the broad definition of the environment used in the evaluation, one alternative is rarely preferred to all others in every respect. Relative advantages in one area may be offset by relative disadvantages in another. A consistent basis for tradeoffs is therefore important so that a solid case is made for the selection of the preferred alternative. Often this is the most difficult stage of the evaluation and should be documented as clearly as possible (see clear complete documentation, Section 2.5 of these Guidelines).

Summary charts are a useful way of presenting information on the advantages and disadvantages of alternatives. Figure 3 is one example of such a summary chart. The information provided should address the:

- a) relevant portions of the historical record, the chronological sequence of events and decisions including input from government ministries and agencies and the public
- b) key decisions and their reasons including the identification and evaluation of alternatives.

Both of these aspects of the planning process should be clear to the reader of the environmental assessment.

FIGURE 3:

SUMMARY OF EVALUATION

Alternatives	Environmental Effects Social, Cultural, Natural Technical, Economic	Mitigation/ Enhancement	Net Effects	Advantages/ Disadvantages

3.7 Description of the Undertaking

The undertaking is the preferred alternative selected by the proponent. It is the alternative which for the proponent has the preferred balance of advantages to disadvantages. Other parties may have different perspectives and believe that another alternative is better. While the proponent should consider input from other parties, the decision is the proponent's, subject to challenge. In the final analysis, the Minister or Board will consider the proponent's information as well as any submissions from other parties in determining whether the undertaking should be approved.

The description should specify clearly and comprehensively what the proponent is seeking approval for, so that the proponent will be able to proceed if the undertaking is approved. The description of the undertaking is more detailed than the description of alternatives. It is appropriate and desirable that the proponent have some flexibility in proceeding with the undertaking. He must, however, describe and set the limits on this flexibility in the description of the undertaking.

The description might include some or all of: location, dimensions, construction, operation, maintenance, decommissioning, industrial processes, nature and sources, fuels and raw materials, by-products, emissions, effluents, support services required (i.e., sewers, water supply and electricity, etc.), products and services supplied, scale of employment, schedule for production and operation.

All commitments to future action on the part of the proponent must be clearly specified including such matters as mitigation, monitoring, contingency planning and future consultation with ministries and agencies and the public.

3.8 Rationale for the Undertaking and Alternatives

3.8.1 Rationale

The statement of rationale represents a proponent's summary explanation of the decisions that were made throughout the process to select the undertaking from the alternatives considered. The evaluation of the 'do nothing' alternative serves to identify whether each of the alternatives considered, including the undertaking, are preferred to the 'do nothing' alternative.

The statement of rationale is normally presented in a separate section of the EA document. Proponents should not, however, wait until the end of planning to document the rationale. Since the rationale is the summary of the decisions which were made throughout planning, proponents should document the rationale for the decisions made at each decision point.

3.8.2 Need

The word "need" is not a term which is used in the EA Act. Despite this, the issue of whether a specific proposal is "needed" often arises in planning, and is one which the EA Board considers to be important.

In the reasons for decision on application by the Ministry of Transportation and Communications for a new four-lane freeway (Highway 416) in the Ottawa area, the EA Board commented that:

"... the Board must be convinced that there is a need that must be satisfied and that the undertaking proposed will satisfy the need with the advantages outweighing the disadvantages to the proponent and the people of the Province. If there is no need, the Board cannot accept that the wise management and conservation of the environment would in fact be accomplished."

The concept of need is subjective and its definition may vary depending on the perspective of the participant. The proponent is expected to address "need" from its own perspective.

At the outset of planning the proponent is aware of a perceived need to solve a problem or to take advantage of an opportunity which is subsequently tested in the evaluation of alternatives throughout the planning process. A clear description of the problem or opportunity provides one element of "need".

The proponent addresses "need" in evaluating the advantages and disadvantages of alternatives. The results of the evaluation process serve to clarify, quantify and justify the perceived need.

The need for the undertaking is explicitly established at the end of the planning process when a preferred alternative is selected. It should be evident that the balance of advantages to disadvantages is better, based on the study information for the undertaking than for all the other alternatives considered, including the 'do nothing' alternative.

The comparison of the undertaking to the do nothing alternative is a key aspect of demonstrating the "need" for the undertaking. This provides the basis for determining that the advantages of proceeding with the undertaking outweigh the disadvantages to the proponent and the people of the Province.

In the final analysis, the Minister, or the Board will consider the proponent's information on "need", as well as any submissions from other parties, in determining whether the undertaking should be approved.

4.0 THE ENVIRONMENTAL ASSESSMENT

4.1 Document Format

The environmental assessment has to satisfy both expert and lay readers. It therefore must include not only complete technical support for the EA application but also the explanation and information needed for non-specialists to understand the planning process that was followed and the proposed undertaking. Developing an appropriate document is an important topic for discussion with the EA Branch and other interested parties prior to submission of the EA.

It is of prime importance to provide a clear presentation of the essential case in the EA. Detailed technical analysis and data, wherever appropriate, should be placed in appendices and support documents that may be consulted as necessary.

It is important to cross-reference information so that all readers can find specific information in the EA and supporting documents.

Summaries for all major sections and for areas of technical analysis should be used to maintain links between detailed discussions and the overall argument. Graphics and summary tables can be particularly effective in clarifying the main points of an evaluation.

A flowchart representing the proponent's planning and decision-making process, cross-referenced to sections of the EA, is recommended.

Regulation 205/87 (clause 2(1)) to the EA Act requires that an EA submission also contain an executive summary. This replaces Form 1 of Ontario Regulation 293. This summary must include:

- a) a brief summary of the EA organized in accordance with subsection 5(3) of the Act;
- b) a list of studies and reports which are under the control of the proponent and which were done in connection with the undertaking or matters related to it;
- c) a list of studies and reports related to the undertaking or matters related to it, not under the proponent's control but of which the proponent is aware;
- d) where the EA is for an undertaking with a fixed location, at least two unbound well marked and legible maps approximately 210 millimetres by 300 millimetres in size showing the location of the undertaking and the area to be affected by it.

One of these maps shall be a simplified base map suitable for reproduction on any notices and the other may include more detail, such as 1:10,000 scale Ontario Base Map. These maps will be used in public notices and included in the Government Review.

To facilitate review by government bodies, a minimum of 50 copies is normally required, but the exact number should be confirmed with the EA Branch prior to submission.

It is preferable if the EA is submitted on standard materials in standard sizes with reproducible graphics. Character and note size in maps and diagrams should be no smaller than seven points after reproduction. Shaded mapping should be done in a non-complex black-and-white format. Blackline is preferred for either diazo or print reproduction. It is suggested that EAs be reproduced on recycled paper printed on both sides.

Proponents may wish to make the EA available at community libraries and to provide copies to the public.

The EA Branch will also provide copies of the EA to:

- Ministry of Government Services - This Ministry produces Microfiche copies of documents which can be purchased
- local District and Regional Offices of the Ministry of the Environment

This wide distribution allows all parties to gain easy access to the EA.

The following section lists the eight headings under which the planning process and undertaking are to be described in the EA. The detailed information is fully explained in the preceding Chapter 3.

4.2 Description of the Undertaking

The description of the undertaking explains what the proponent is seeking approval for. It is important that the explanation be clear and comprehensive, since it sets forth what a proponent who receives approval will be legally committed to. A proponent with EA approval is not required to proceed; he is merely required not to go beyond the approval.

Further information on what should be included in the description of the undertaking is in Section 3.8 of these guidelines.

4.3 Description of the Purpose of Undertaking

Proponents should describe the purpose of the study, the changes which were made to it during the planning process, and the purpose of the undertaking.

Further information on the description of the purpose is in Section 3.2 of these guidelines.

4.4 Description of Alternatives to the Undertaking and Alternative Methods of Carrying out the Undertaking

The alternatives which were considered throughout the planning process, beginning with the determination of reasonable alternatives must be described.

Sections 3.3 and 3.4 of these guidelines provide further information on alternatives.

4.5 Description of the Environment Affected

The description of the environment affected should include all components of the environment (social, cultural, economic, technical and natural).

Section 3.5.1 of these guidelines provides further information on the description of the environment affected.

4.6 Description of Environmental Effects

The likely environmental effects of each alternative on the full definition of environment must be identified and

described. The EA should also include a discussion of the methods that were used to predict environmental effects.

Further information may be found in Section 3.5 of these guidelines.

4.7 Description of Mitigation/Enhancement Measures

The EA must include a description of ways to "prevent, change, mitigate or remedy" the potential environmental effects and should also describe measures to increase or enhance positive effects.

Further information may be found in Section 3.5 of these guidelines.

4.8 Evaluation of Advantages and Disadvantages

The EA must include an evaluation of the advantages and disadvantages to the environment of alternatives and the undertaking, based on the "net" environmental effects. A clear explanation should be provided of the evaluation methods, the way in which they were used and the results of the evaluation at each decision-point.

Section 3.1, 3.5 and 3.8 of these guidelines provide more information on evaluating alternatives and the undertaking.

4.9 Description and Statement of the Rationale for the Undertaking and Alternatives

The statement of rationale summarizes the decisions that were made throughout the process to reject certain alternatives and the reasons why the undertaking should be approved.

Further information may be found in Section 3.6 of these guidelines.

5.0 THE APPROVAL PROCESS

5.1 Government Review of the Environmental Assessment

On receipt of an environmental assessment, the Minister arranges for a review to be prepared. The review is coordinated by the Environmental Assessment Branch. The participants usually include reviewers in provincial ministries and agencies and selected federal departments and agencies. In specific cases, the Ministry may retain outside experts to assist in the Review.

The purpose of the review is:

- ° in general, to provide a broad evaluation of strengths and weaknesses; and,
- ° in particular, to determine the extent to which the requirements set out in subsection 5(3) of the EA Act are met.

These requirements have been described in Sections 3 and 4 of these Guidelines.

5.1.1 Review Process

The review process will be summarized briefly here and is discussed in more detail in the Ministry of the Environment's policy on The Role of the Review and Review Participants in the EA Process. The policy is available from the Environmental Assessment Branch.

Two criteria are used to judge the extent to which an EA meets the Act's requirements:

- 1) Are all required components present?

- 2) Is the technical quality and level of detail of the information satisfactory and was an appropriate range of alternatives considered?

The Environmental Assessment Branch evaluates whether the first criterion has been satisfied. Those ministries and agencies participating in the review or reviewers, are asked to consider how well the EA meets the second criterion, within their areas of concern.

The EA Branch and government reviewers also advise whether they are satisfied with the weight given by the proponent to their agencies' policy interests. Where reviewers find significant deficiencies, they may advise on changes to the EA or on further research.

The Environmental Assessment Branch evaluates and consolidates the comments of the various reviewers in to a document. This is referred to as the 'Review' and is released for comment to the public, municipalities, government ministries and agencies and the proponent before a decision on acceptability of the EA is made.

To do this, the Minister notifies the proponent, any municipalities likely to be affected by the undertaking, and the public that the environmental assessment and the Review are available for inspection. During a minimum 30-day period, anyone may submit written comments on the matter to the Minister of the Environment and may require that a public hearing be held.

5.2 Decision Process

Decisions regarding a proposed undertaking are made after the Review of the EA has been published and the minimum 30 day public review period has ended.

The EA Act sets out two basic decision points:

- ° whether to accept the environmental assessment as a basis for making a decision on the undertaking;
- ° whether to approve the undertaking.

The decision on acceptance is made by the Minister of the Environment or, if requested by the Minister, by a hearing board. The decision on approval is made by the Minister, together with Cabinet unless the matter is referred to a hearing board.

(a) Acceptance of the Environmental Assessment

To determine the acceptability of the EA, the Minister must consider:

- ° The purpose of the Act.
- ° The government review of the EA.
- ° Any submissions made by the public, government ministries and agencies or the proponent.
- ° The Environmental Assessment.

The proponent or any affected party may, with reasons given, require the Minister to hold a public hearing on the acceptability of the environmental assessment. The Minister must do so, in the words of the Act, "unless in his absolute discretion he considers that the requirement is frivolous or vexatious or that a hearing is unnecessary or may cause undue delay".

With this information in hand, except where a hearing is required, the Minister decides whether the environmental assessment:

- ° is acceptable as submitted for the decision on approval;
- ° would be acceptable with certain amendments;
- ° requires further research, investigation, changes, and additions by the proponent to be acceptable;
- ° should have its acceptability decided by a hearing board rather than by the Minister.

The Minister's decision is communicated to the proponent and affected parties may be challenged by any party who made a submission to the Minister.

Thus the presentation of reasons and information for or against the acceptability of the EA by affected parties or against further work on it by the proponent are important factors for the Minister to consider.

5.2.3 Approval of the Undertaking

When an environmental assessment is determined to be acceptable, either as submitted or as amended, a decision is made on whether the undertaking should be approved.

If a hearing board has ruled on acceptability, the same board decides whether to approve the undertaking.

If the Minister has determined that the EA is acceptable either as submitted or as amended, the Minister can choose either to make the approval decision or refer the decision on approval to a hearing.

The decision on approval itself, whether made and reported by the Minister or by a hearing board, will have one of three results:

- ° giving approval to proceed with the undertaking;
- ° refusing approval to proceed;
- ° giving approval to proceed with certain conditions.

In the last case the decision will specify the requirements being imposed on the proponent. As outlined in clause 14(1)(b) of the Act, the conditions might include such things as methods of implementation, particular mitigative measures, further research and monitoring programs, and allowed periods of construction and operation.

If made by the Minister together with Cabinet, the decision on approval is final. If made by a hearing board under the Environmental Assessment Act, the decision is final only if the Minister does not intervene within 28 days. During that interval following a board decision,

the Minister may, with Cabinet approval, modify the decision in any way, reverse it, substitute a different decision, or instruct the board to reconsider its decision or even order a new hearing to be held.

If the hearing was held by a Joint Board under the Consolidated Hearings Act, 1981 any member of the public may appeal the decision to Cabinet within 28 days. Cabinet may modify the decision in any way, reserve it, substitute a different decision or order a new hearing to be held on all or any part of the proposal.

(c) Three Decision Routes

The options available within the approval process therefore mean that an environmental assessment, once submitted, normally follows one of three decision routes. These routes are shown in Appendix F to these guidelines.

- ° The first route is the quickest and normally occurs only with proposals where no serious objections are raised by affected parties and no hearings are called. The Minister makes both acceptability and approval decisions.
- ° The second route is where a public hearing is called to decide both the acceptability of the EA and the approval of the undertaking.
- ° The third route lies between the previous two routes. The Minister decides the EA is acceptable, however, he determines that a hearing is advisable to decide on approval of the undertaking.

5.3 Board Hearings

A public hearing on an environmental assessment called by the Minister of the Environment is ordinarily held before the Environmental Assessment Board. But in cases where approval of the undertaking under the Act would lead to further hearings by other tribunals under other acts, the proponent can request a consolidated hearing by a Joint Board under the Consolidated Hearings Act, 1981 and so avoid the cost and delay of multiple hearings.

(a) Hearing Participants

The following are eligible to participate at Board hearings:

- ° the proponent,
- ° any person who has asked for a hearing,
- ° other persons or agencies recognized by the Board as having an interest in the proceedings, and
- ° the Minister of the Environment, represented by counsel or otherwise.

(b) Environmental Assessment Board Hearings

The composition and powers of the Environmental Assessment Board are set out in Part III of the Environmental Assessment Act. They include the following:

- ° The Board is independent; its members are appointed by Cabinet but are not employed by any ministry.
- ° Except in very rare circumstances, all Board hearings are open to the public.
- ° EA Board decisions become final in 28 days unless the Minister intervenes on behalf of the government.

The Board may be required to hold a hearing by the Minister at any time after the expiry of the 30-day public notice period following the publication of the Review. In addition, at certain times, the proponent or anyone else can request that a hearing be held:

- ° within 30 days (or more if the Minister stipulates) of public notification that an environmental assessment and government review are available for inspection;
- ° within 15 days of public notification that the environmental assessment has been accepted, either as submitted or as amended, by the Minister.

During these intervals, any person may submit written notice to the Minister requesting a hearing. This notice must be accompanied by a written presentation of information and reasons why the hearing is necessary. On receiving this notice the Minister must call a hearing unless it is determined that the request is frivolous or vexatious or that a hearing is unnecessary or may cause undue delay.

(c) Joint Board Hearings Under the Consolidated Hearings Act, 1981

When a project requires approval under several Acts and before several boards, the Consolidated Hearings Act, 1981 provides for a single hearing on all approvals. The relevant Acts are set out in a schedule to the Consolidated Hearings Act, 1981. They include the Environmental Assessment Act, the Environmental Protection Act, the Expropriations Act, the Ontario Municipal Board Act, the Ontario Water Resources Act and the Planning Act.

A Joint Board is established ad hoc for each application and will have at least one member (and perhaps more) from the Environmental Assessment Board or the Ontario Municipal Board or both. In relation to the decisions required under the Act (acceptability of the environmental assessment and/or approval of the undertaking) the Joint Board acts as though it were an Environmental Assessment Board, with equal or greater powers.

In three respects, a Joint Board hearing may differ from an EAB hearing:

- ° The hearing may be 'phased', that is, decisions on particular matters under consideration may be deferred until a later date.
- ° The decision may, within 28 days, be appealed to Cabinet by any participant in the hearing.

For these reasons, as well as to save time, Joint Board hearings are sometimes preferred by participants.

A consolidated hearing may be chosen by the proponent or ordered by individual boards. The proponent wishing a consolidated hearing must give written notice to the Hearings Registrar, explaining the general nature of the undertaking, the hearings that may be required, and the Acts in question.

Under certain circumstances, the Environmental Assessment Board, the Ontario Municipal Board, and some other boards may require a proponent to pursue a consolidated hearing.

5.4 The Environmental Assessment Advisory Committee

On July 4, 1983, the Environmental Assessment Advisory Committee (EAAC) was appointed to provide advice, at the Minister of the Environment's request, relating to applications for exemptions from the provisions of the Environmental Assessment Act, requests for the designation of undertakings to render them subject to the EA Act, and any other related matters as the Minister may prescribe.

There are three types of EAAC review that the Minister may ask to be conducted:

Category A

Open Review - Public notice and consultation will be given in the manner to be determined by the Committee.

Category B

Defined Review - Public notice and consultation is limited to affected groups and individuals selected by the Committee and by the Minister.

Category C

Internal Review - In exceptional circumstances the Minister may require the advice of the Committee respecting a matter only requiring an internal review. Should the Committee consider consultation is necessary for this review, the Minister's approval will be sought.

The Minister shall decide the timeframe within which the Committee's advice is to be provided. The normal timeframe for Category A shall be six weeks, for Category B six weeks and two weeks for Category C.

5.5 The Public Record

Files on projects in Pre-Submission Consultation and the formal approval process are maintained at the EA Branch offices in Toronto and are available for any interested party to review upon request. The EA Branch files contain all information received by the Branch from any participant.

Information contained in the public record file includes:

- ° the EA - when submitted to the Minister of the Environment
- ° the Notice of Completion of Review and the Review - when the Notice is published
- ° written submissions to the Minister or Ministry of the Environment staff
- ° any decisions of the Minister or a hearing board
- ° all notices and orders issued under the Act.

Certain information, including the environmental assessment and the Review may also be viewed at the local District or Regional Office of the Ministry of the Environment.

APPENDIX A

List of Additional References

Environmental Assessment Act.*

Consolidated Hearings Act, 1981.*

*Available from:

Ontario Government Bookstore
880 Bay Street
Toronto, Ontario
M7A 1N8
In Toronto: 965-6015
Other Communities: 1-800-268-7540
Area code: 807 Zenith: 67200

Guidelines on Pre-Submission Consultation in the EA Process.

Policy on Pre-Submission Consultation in the EA Process

Project Screening and Application for Exemption Orders Under
Section 29 of the Environmental Assessment Act.

Policy on the Role of the Review and the Review Participants in
the EA Process.

EA Update (A bi-annual publication of the Environmental
Assessment Branch).

A Citizen's Guide to Environment Assessment.

A Proponent's Guide to Environmental Assessment

Environmental Assessment Advisory Committee Annual Reports.

FOR INFORMATION CONTACT:

Environmental Assessment Branch
Ministry of the Environment
250 Davisville Avenue
Toronto, Ontario
M5S 1H2
(416) 440-3450

APPENDIX B

Ontario Regulation 205/87

R.O.C. 145/87

Dated: April 9, 1987

Filed: April 13, 1987

Published in the Ont. Gazette:
May 2, 1987

ONTARIO REGULATION 205

REGULATION MADE UNDER THE ENVIRONMENTAL ASSESSMENT ACT

(Prepared for convenience only by
the Ministry of the Environment.
For accurate reference, refer to
the Official Volumes.)

GENERAL

1. In this Regulation,

"development corporation" means a corporation under the
Development Corporations Act;

"change in use" when used with respect to dam
reconstruction means the addition of new uses or
changing the highest level at which water may be
stored;

"dam reconstruction" means the reconstruction or
rebuilding of a dam that involves a change in use of
the dam or reservoir from,

- (a) the use being made immediately prior to the
construction taking place, or
- (b) a use being made within the ten years
immediately prior to the reconstruction
taking place where the construction
involves the repair of a dam which has been
wholly or partly inoperable due to damage;

"estimated cost" means the most current estimate prepared
by an engineer, architect, official, planner or
construction contractor of the cost of an undertaking
which estimate has been submitted to the council or
other governing body of a municipality or a committee
thereof and has been accepted by it as the basis upon
which the undertaking is to be proceeded with, but
does not include any costs for,

- (a) the acquisition of land,
- (b) feasibility studies and design carried out
for the undertaking,

- (c) the operation of the undertaking, or
- (d) a building, the construction of which is regulated by the Building Code Act and the furnishings, equipment and ancillary facilities and machinery provided in or for the building,

and where an undertaking is being constructed in phases includes the cost of all phases;

"exclusive right-of-way" when used in connection with a bus service means a roadway, including entrances and exits, constructed for use by buses and upon which the public is not permitted to drive motor vehicles but not including accesses to stations and stops or turning, storage and service facilities not otherwise associated with such a right-of-way, nor a reserved bus lane on an existing road;

"fish and wildlife habitat management" means the creation, improvement and maintenance of habitat in order to increase or maintain the supply of food, cover and opportunities for reproduction for fish and wildlife populations, but does not include structural measures for which assessment is required under the provisions of the class environmental assessment for water management structures;

"hardship" means a situation where a person,

- (a) needs to sell property quickly for health or financial reasons or to settle an estate but is unable to do so at a fair market value, or
- (b) has been refused a building permit because an undertaking, planned or proposed, has not received approval under the Act;

"operating" includes maintaining and repairing and any activities for operating, maintaining and repairing, and "operation" has a corresponding meaning;

"start of construction" means,

- (a) where contracts are to be awarded for carrying out part or all of the construction involved in the undertaking, the date on which the first such contract is awarded, and
- (b) where no such contract is to be awarded, the date on which construction starts.

2.-(1) An environmental assessment submitted to the Minister shall contain, in addition to the information required under subsection 5(3) of the Act,

- (a) a brief summary of the environmental assessment organized in accordance with the matters set out in subsection 5(3) of the Act;
- (b) a list of studies and reports which are under the control of the proponent and which were done in connection with the undertaking or matters related to the undertaking;
- (c) a list of studies and reports done in connection with the undertaking or matters related to the undertaking of which the proponent is aware and that are not under the control of the proponent;
- (d) where the environmental assessment is for an undertaking with a fixed location, at least two unbound well marked and legible maps about 210 millimetres in size by 297 millimetres in size showing the location of the undertaking and the area to be affected by it.

(2) Of the maps referred to in clause (1)(d), one shall be a simplified base map suitable for reproduction in any notices that may be published and the other may include more detail such as a 1:10,000 scale Ontario Base Map.

(3) The maps referred to in clause (1)(d) may show alternative proposals.

3. The following bodies are defined as public bodies:

1. Algonquin Forestry Authority.
2. Authorities within the meaning of the Conservation Authorities Act.
3. Colleges, universities and other bodies, except the Royal Ontario Museum and municipalities, to which the Ontario Universities Capital Aid Corporation Act would have applied if it had not been repealed.
4. Development corporations.
5. Ontario Energy Commission.

6. Ontario Hydro.
7. Ontario Northland Transportation Commission.
8. Ontario Telephone Development Corporation.
9. Ontario Transportation Development Corporation.
10. Toronto Area Transit Operating Authority.

4.-(1) An undertaking, whether constructed or started before or after the coming into force of the relevant provisions of the Act, for the construction or start of which the approval of the Minister to proceed was not required is exempt with respect to its operation and retirement from the provisions of subsection 5(1) of the Act requiring the proponent not to proceed with the undertaking and from the provisions of subsection 6(1) of the Act.

(2) A proponent of an undertaking of a type referred to in subsection (1) is exempt from the provisions of section 39 of the Act with respect to the requirement of submitting an environmental assessment to the Minister with respect to the operation or retirement of the undertaking.

5.-(1) This section does not apply to an undertaking of a body listed in section 3 that may be found to be a local board as defined in the Municipal Affairs Act or to be a board, commission or other local authority exercising power in respect of municipal affairs.

(2) An undertaking by a municipality is exempt from the provisions of subsection 5(1) of the Act where,

- (a) subject to subsection (3), it has an estimated cost of not more than \$3,500,000;
- (b) it is an undertaking by a board within the meaning of the Education Act;
- (c) it is a drainage works regulated under the Drainage Act;
- (d) it is a waste disposal site that,
 - (i) is a transfer station for domestic waste that uses portable containers,
 - (ii) is an organic soil conditioning site certified under the Environmental Protection Act,

- (iii) is a transfer station for processed organic waste located at the sewage treatment works where it is generated or at the organic soil conditioning site where it is disposed of, or
- (iv) is a site certified under section 31 of the Environmental Protection Act for the disposal of waste other than hauled liquid industrial waste or hazardous waste as designated in regulations made under subsection 136(4) of the Environmental Protection Act;
- (e) it is an undertaking of a type that, save that the proponent is not Ontario Hydro, is described in Orders of the Minister dated the 14th day of October, 1976 and published as numbers OHB-2, OHC-3 and OHD-4 in the issue of The Ontario Gazette dated the 13th day of November, 1976;
- (f) it is an undertaking that consists of the provision of municipal non-profit housing facilities that may include ancillary commercial and other uses within the housing project;
- (g) it is an undertaking of a type that, save that the proponent is not Ontario Hydro, is described in the Order of the Minister dated the 14th day of October, 1976 and published as number OHF-6 in the issue of The Ontario Gazette dated the 13th day of November, 1976 and it is proposed that its construction and maintenance be carried out in accordance with the standards that apply to such undertakings when carried out by Ontario Hydro;
- (h) subject to subsection (3), it is a work provided for in a subdivision agreement between a municipality and a subdivider;
- (i) it is a work other than a work of a type described in clause (4)(a) that is provided for in a subdivision agreement between a municipality and a subdivider for the management of storm water that originates only from the subdivision or other adjacent land of the subdivider; or

(j) it is a transfer of land initiated by the owner of the land,

(i) in a hardship situation, or

(ii) as part of an arrangement whereby the municipality is to provide a fence in return for a transfer of land.

(3) The exemptions provided by clauses (2)(a) and (h) do not apply in respect of,

(a) an undertaking of a type referred to in clause (4)(a);

(b) a new bus service on an exclusive right of way or a new rail transit system;

(c) a new station, terminal or marshalling yard for a rail transit system;

(d) a waste disposal site with respect to which a hearing would be required under section 30 of the Environmental Protection Act;

(e) an undertaking on which start of construction occurs after the 31st day of December, 1987 and which is or includes a work that is,

(i) a dam or reservoir construction,

(ii) channelization, stabilization or diversion of a water course,

(iii) a dyke or levee construction,

(iv) an alteration or construction of a shoreline,

(v) a dam reconstruction, or

(vi) fish and wildlife habitat management;

(f) an undertaking of a type that, save that the proponent is not Ontario Hydro, is,

(i) described in Orders of the Minister dated the 14th day of October, 1976 and published as numbers OHE-5, OHG-7 and OHL-12 in the issue of The Ontario Gazette dated the 13th day of November, 1976, and

- (ii) except in the case of communication towers, designed to operate at a voltage of 115 kilovolts or more; or

- (g) an undertaking of a type described in subsection (6).

(4) An undertaking by any municipality, if it is an undertaking of a type,

- (a) approved under section 14 of the Act with respect to,

- (i) the class environmental assessment for municipal road projects with approval dated the 9th day of April, 1987, or
- (ii) the class environmental assessment for sewage and water projects with approval dated the 9th day of April, 1987;

copies of which may be found in the public records maintained under section 31 of the Act; and

- (b) that is being carried out in accordance with the procedure set out in the relevant class environmental assessment and approval and for which the procedure does not require a further approval, and for which no other environmental assessment has been submitted,

is exempt from the provisions of subsection 5(1) of the Act.

(5) The exemption provided in subsection (4) applies only to municipalities that are not one of the municipalities that submitted a class environmental assessment referred to in subsection (4).

(6) An undertaking by a municipality, for which an environmental assessment has not been submitted is exempt from the provisions of the Act where it is an undertaking of a type for which the Minister issued a Notice of Approval dated the 2nd day of April, 1981 to the Toronto Area Transit Operating Authority pursuant to Order-in-Council 930/81, and construction of the undertaking is started on or before the day on which a decision with respect to the environmental assessment for Municipal Transit submitted to the Minister for approval on the 18th day of January, 1984, is made or deemed to be made under subsection 14(1) of the Act.

(7) Except as provided for in subsection (4), the obtaining of an option to acquire land or an interest in land by a municipality or the entering into an agreement to purchase land or an interest in land by a municipality, where the acquisition or purchase is conditional on compliance with the Act, is an undertaking that is exempt from the provisions of subsection 5(1) of the Act.

6.-(1) All undertakings and classes of undertakings by or on behalf of Her Majesty in right of Ontario and carried out by,

- (a) the Minister of Revenue;
- (b) the Minister of Labour;
- (c) the Minister of Correctional Services;
- (d) the Attorney General;
- (e) the Minister of Colleges and Universities;
- (f) the Solicitor General;
- (g) the Minister of Community and Social Services;
- (h) the Minister of Consumer and Commercial Relations;
- (i) the Minister of Education;
- (j) the Minister of Health;
- (k) the Minister of Agriculture and Food;
- (l) the Minister of Municipal Affairs; and
- (m) the Minister of Housing.

are exempt from the provisions of subsection 5(1) of the Act.

(2) All undertakings and classes of undertakings by or on behalf of Her Majesty in right of Ontario and carried out by an agent of Her Majesty in right of Ontario who is not,

- (a) a Minister of the Crown;
- (b) acting on behalf of a Minister of the Crown; or
- (c) defined as a public body,

are exempt from the provisions of subsection 5(1) of the

7. Notwithstanding section 6, an undertaking carried out by the Minister of Government Services on behalf of or at the request of,

- (a) a Minister of the Crown named in section 6;
or
- (b) an agent of the Crown exempted by
section 6,

that would be subject to the Act but for section 6 is not exempt from the Act.

8.-(1) In this section,

"authority" means an authority within the meaning of the Conservation Authorities Act;

"conservation services" means works carried out under an agreement with a private landowner for the purpose of,

- (a) creation of shelter belts and wind breaks,
- (b) erosion control,
- (c) soil conservation,
- (d) water conservation, or
- (e) water quality improvement,

where the estimated cost of the works including all related projects does not exceed \$20,000.

"cost" means the estimated total cost of the implementation of an undertaking at the time of its approval under section 24 of the Conservation Authorities Act by the Minister of Natural Resources exclusive of any costs for the acquisition of land or for any feasibility studies and design carried out for the undertaking or the operation of the undertaking;

"floodproofing" means taking measures to protect a structure or its contents from flood damage where the measures are carried out, in, on or immediately adjacent to, the structure being protected, but does not include constructing dykes, channels, retaining walls and water reservoirs or impoundments or other structures, only part of which forms part of, or is immediately adjacent to, the structure being protected;

(2) An undertaking by an authority is exempt from the provisions of subsection 5(1) of the Act if the undertaking is solely for the purpose of,

- (a) reforestation and woodlot management;
- (b) restocking of indigenous wildlife;
- (c) provision of conservation area workshops, administration buildings, outdoor education and interpretive centres;
- (d) conservation services;
- (e) municipal tree replacement;
- (f) agricultural land management of authority-owned lands;
- (g) floodproofing;
- (h) fish and wildlife habitat management;
- (i) development of conservation areas and campgrounds having a cost of not over \$1,000,000; or
- (j) relocation or improvement of historical buildings,

or for the combination of any purposes set out in clauses (a) to (j).

(3) The acquisition of land or interests in land by an authority is exempt from the provisions of subsection 5(1) of the Act.

9. The undertaking of making a loan, giving a grant, giving a guarantee of debts or issuing or granting a licence, permit, approval, permission or consent is exempt from the provisions of subsection 5(1) of the Act.

10. Notwithstanding any provisions of this Regulation exempting any undertaking from the provisions of the Act, where an environmental assessment of an undertaking is submitted, all provisions of the Act apply in respect of that undertaking.

11.-(1) In this section,

"research" includes measuring, monitoring and testing;

"research undertaking" means an undertaking that is carried out for the purpose of or that consists of research.

(2) Research undertakings are exempt from the provisions of subsection 5(1) of the Act.

12.-(1) In this section, "PCB" means any monochlorinated or polychlorinated biphenyl or any mixture of them or mixture that contains one or more of them.

(2) The locating of a mobile PCB destruction facility on lands of the Crown, a municipality or public body and the using of a mobile PCB destruction facility to destroy PCB wastes of the Crown, a municipality or public body are exempt from the provisions of subsection 5(1) of the Act whether or not the establishment of the facility required an approval under the Act.

13.-(1) Regulation 293 of Revised Regulations of Ontario, 1980, Ontario Regulations 383/81, 841/81, 140/82, 466/82, 775/82, 414/83, 783/83, 108/85, 149/86 and 13/87 are revoked.

(2) Notwithstanding subsection (1), any part of an undertaking for which an Environmental Assessment has not been submitted and that was exempt under,

- (a) clause 5(5)(a) of Regulation 293 of Revised Regulations of Ontario, 1980 (providing exemptions for certain municipal undertakings); or
- (b) clause 9(2)(a) of Regulation 293 of Revised Regulations of Ontario, 1980, (providing exemptions for certain conservation authority undertakings),

on the day immediately before the day this Regulation comes into force, remains exempt.

REGULATION TO AMEND
ONTARIO REGULATION 205/87
MADE UNDER THE
ENVIRONMENTAL ASSESSMENT ACT

1.-(1) Clause 5(3)(e) of Ontario Regulation 205/87 is revoked.

(2) Clause 5(4)(a) of the said Regulation is amended by striking out "or" and the end of subclause (i), by adding "or" at the end of subclause (ii) and by adding thereto the following subclause:

(iii) the class environmental assessment for water management structures with approval dated the 12th day of December, 1985,

.

(3) Subsection 5(5) of the said Regulation is revoked.

2. Any undertaking which, but for the revocation of clause 5(3)(e), would have been exempt under clause 5(2)(a) or (h), remains exempt if construction commences before the 1st day of January, 1988 and an environmental assessment is not submitted.

APPENDIX C

Environmental Assessment Act
Status Flowcharts to Determine the
Status of Municipal Undertakings



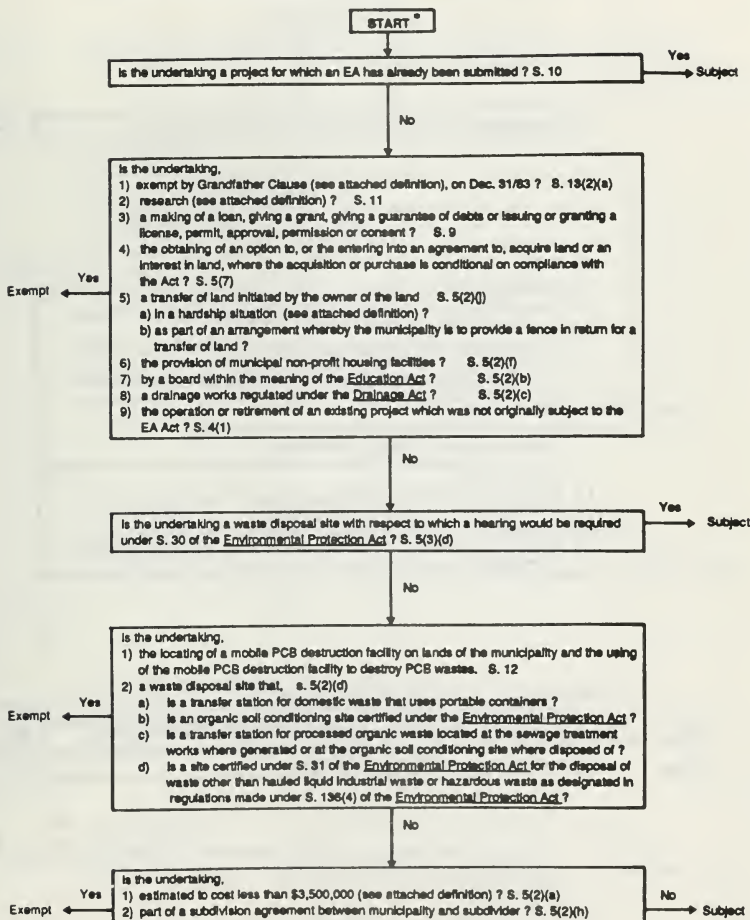
ENVIRONMENTAL ASSESSMENT ACT STATUS FLOWCHARTS

TO DETERMINE THE STATUS OF MUNICIPAL UNDERTAKINGS

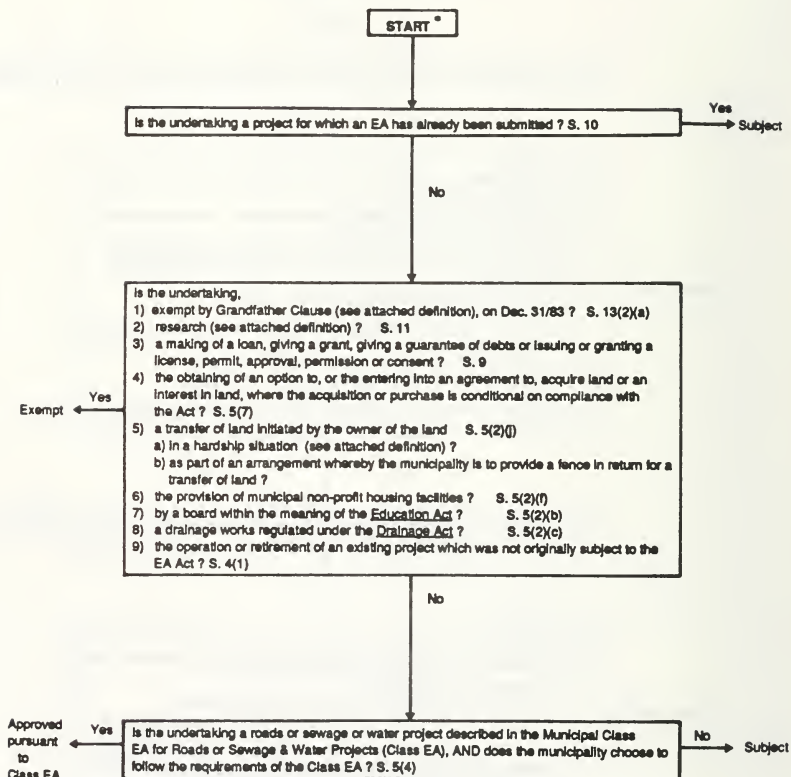
February 1988

FLOWCHART I: Waste Management Projects
FLOWCHART II: Roads and Sewage & Water Projects
FLOWCHART III: Transit Projects
FLOWCHART IV: Electrical Projects
FLOWCHART V: Water Management Projects

FLOWCHART I: WASTE MANAGEMENT PROJECTS

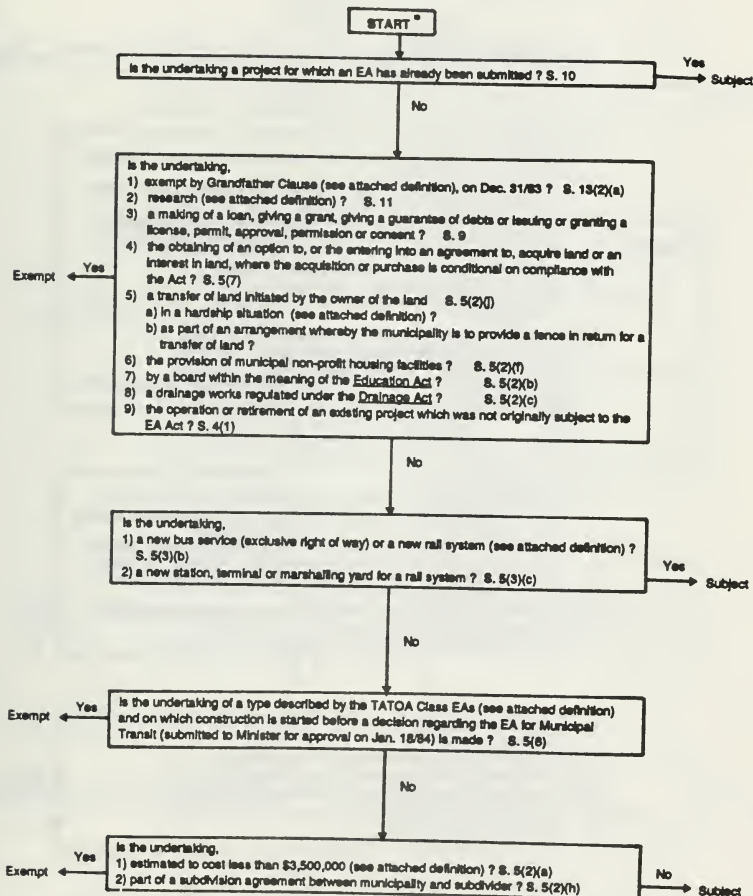


FLOWCHART II: ROADS AND SEWAGE & WATER PROJECTS

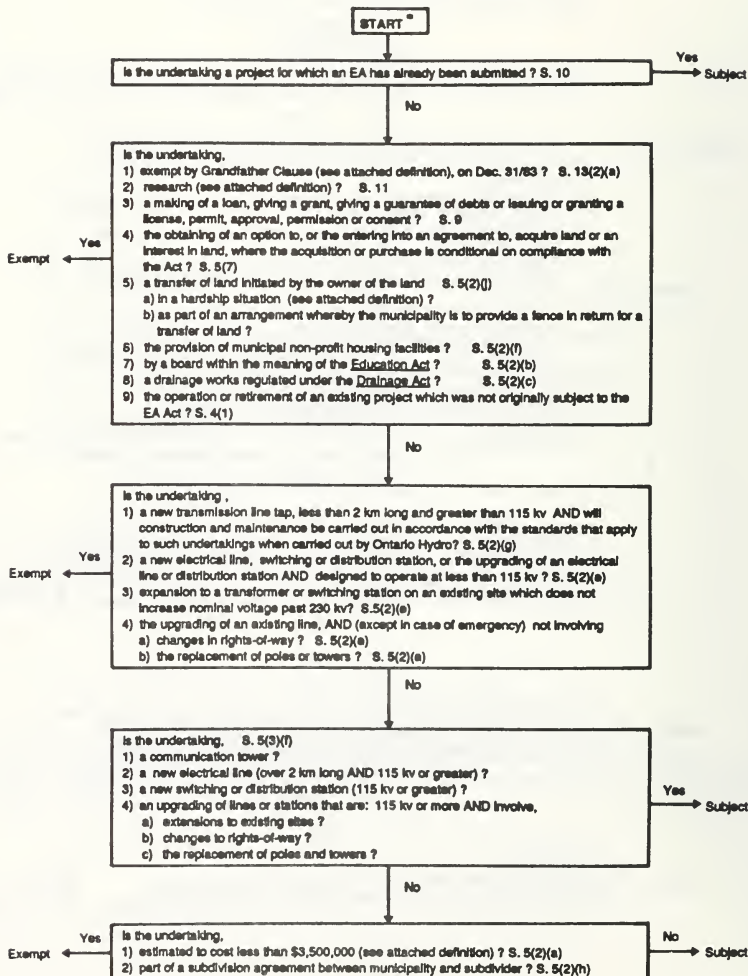


* Where two or more Environmental Assessment approvals affect a project, the requirements of each approval shall apply. For further details, see Ontario Regulation 205/87 or call the EA Branch (416) 440-3450

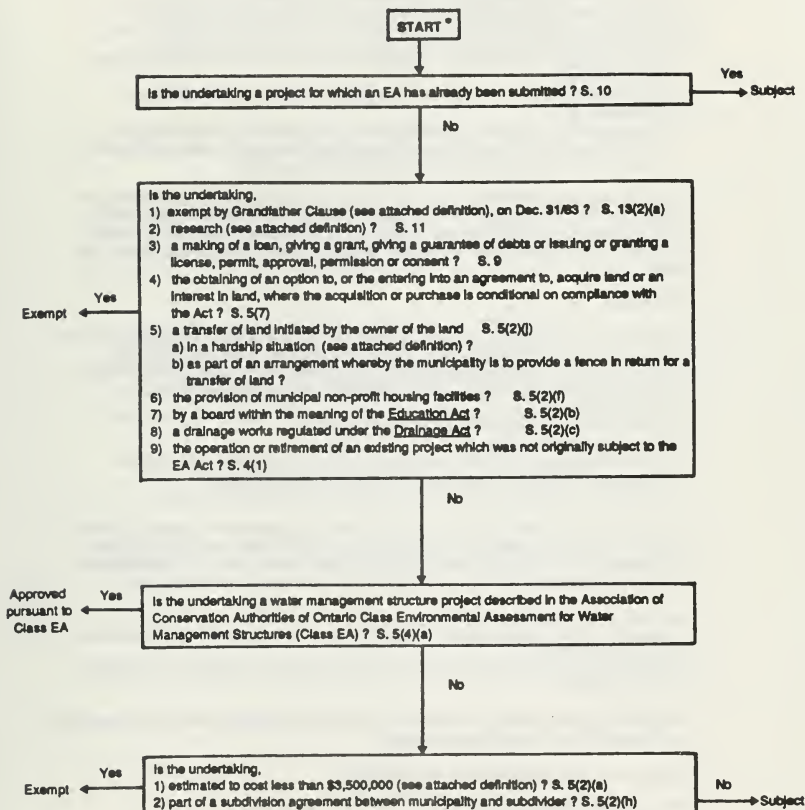
FLOWCHART III: TRANSIT PROJECTS



FLOWCHART IV: ELECTRICAL PROJECTS



FLOWCHART V: WATER MANAGEMENT PROJECTS



* Where two or more Environmental Assessment approvals affect a project, the requirements of each approval shall apply. For further details, see Ontario Regulation 205/87 or call the EA Branch (416) 440-3450

NOTES

GRANDFATHER CLAUSE:

(S. 5(5)(a) of Ontario Regulation 293/80): An undertaking by a municipality, for which an environmental assessment has not been submitted is exempt from the provisions of the Act where,

a) at least 25% of the estimated cost is scheduled to be spent on construction contracts for at least 25% of the estimated cost are scheduled to be let before Dec. 31/83 and prior to June 3/80,

- i) the undertaking was authorized by a resolution or by-law of the council or other governing body of the municipality,
- ii) land was acquired by or on behalf of the municipality for the purpose of implementing the undertaking, or
- iii) the municipality or some other expropriating authority acting on behalf of the municipality had served notice under the Expropriations Act of an application for approval to expropriate land to be used for the purpose of implementing the undertaking (O. Reg. 383/81)

(S. 5(6) of Ontario Regulation 293/80): An exemption under clause (5)(a) ceases to apply with respect to those parts of the undertaking that are not completed by the 31st day of December, 1983 unless at least 25 per cent of the estimated cost of the undertaking has been spent or construction contracts for at least 25 per cent of the estimated cost have been let before the 31st day of December, 1983 (O. Reg. 140/82)

DEFINITIONS:

ESTIMATED COST means the most current estimate prepared by an engineer, architect, official, planner or construction contractor of the cost of an undertaking which estimate has been submitted to the council or other governing body of a municipality or a committee thereof and has been accepted by it as the basis upon which the undertaking is to be proceeded with, but does not include any costs, for,

- a) the acquisition of land,
- b) feasibility studies and design carried out for the undertaking,
- c) the operation of the undertaking, or
- d) a building, the construction of which is regulated by the Building Code Act and the furnishings, equipment and ancillary facilities and machinery provided in or for the building, and where an undertaking is being constructed in phases includes the cost of all phases.

EXCLUSIVE RIGHT-OF-WAY when used in connection with a bus service means a roadway, including entrances and exits, constructed for use by buses and upon which the public is not permitted to drive motor vehicles but not including accesses to stations and stops or turning, storage and service facilities not otherwise associated with such a right-of-way, nor a reserved bus lane on an existing road.

HARDSHIP means a situation where a person,

- a) needs to sell property quickly for health or financial reasons or to settle an estate but is unable to do so at a fair market value, or
- b) has been refused a building permit because an undertaking, planned or proposed, has not received approval under the Act.

OPERATING includes maintaining and repairing and any activities for operating, maintaining and repairing, and "OPERATION" has a corresponding meaning.

RESEARCH includes measuring, monitoring and testing.

TATOA CLASS EA PROJECTS *

- B1) Expansion of an Existing Commuter Rail Station.
- B2) Expansion of an Existing Commuter Bus Terminal.
- B3) New Commuter Rail Station or Bus Terminal with Parking Facilities for Less than 300 Automobiles.
- B4) Expanded or Modified Storage and Maintenance Facilities or Yards for Commuter Bus and Rail Service.

*The TATOA Class EA has been superseded by the GO TRANSIT Class EA document for 'The Construction of New or the Expansion of Existing Commuter Facilities'.

APPENDIX D

Minister of the Environment's Statement
on the Application of the
Environmental Assessment Act to
Private Sector Energy from Waste Proponents



newsrelease / communiqué

Ministry
of the
Environment

Ministère
de
l'Environnement

March 13, 1987

FOR FURTHER INFORMATION:
Roger Clarke, (416) 323-4319
Environmental Assessment
Branch

John Steele, (416) 323-4337
Communications Branch

PRIVATE AND PUBLIC ENERGY FROM WASTE PROJECTS TO BE DESIGNATED UNDER ENVIRONMENTAL ASSESSMENT ACT

All public and private Energy From Waste (EFW) programs and waste incineration facilities that handle more than 100 tonnes per day will be subject to Ontario's Environmental Assessment Act (EAA), Environment Minister Jim Bradley announced today.

"Energy from waste facilities represent an alternative to both landfill disposal and conventional sources of energy, but concerns about health and environmental effects require comprehensive evaluation prior to environmental approval," Mr. Bradley said.

The Environmental Assessment Act requires environmental planning that evaluates alternatives to a proposal and offers the public an opportunity to participate in the planning and evaluation.

The ministry recognizes that the private sector faces certain constraints in meeting the requirements of the Environmental Assessment Act. In administering the Act for private sector EFW proposals, these limitations will be taken into consideration.

Facilities burning less than 100 tonnes per day, burning only wood wastes or incinerators burning non-hazardous or municipal waste on the site where it is generated are exempt from the EAA. They would, however, require an approval under the Environmental Protection Act (EPA).

All public sector EFW facilities fall under the ministry's EAA and EPA. Previously, any private sector EFW project was exempt from the requirements of the EAA.

The EAA includes a broad definition of the environment and includes the social, cultural and economic conditions. The act requires that a comprehensive evaluation be undertaken of the advantages and disadvantages of any project, including the consideration of alternatives. Government agencies and the public participate in the planning and evaluation of the projects.

EFW facilities burn a variety of waste to produce energy in the form of steam or electricity. This form of waste management could significantly reduce the amount of garbage entering landfills. However, EFW facilities also have the potential to create and emit toxic chemicals, such as dioxin and furans, along with odors and problems with traffic. The EAA will address these community concerns.

MINISTER OF THE ENVIRONMENT
STATEMENT ON APPLICATION OF THE EA ACT TO
PRIVATE SECTOR ENERGY FROM WASTE PROPONENTS

ENVIRONMENTAL ASSESSMENT ACT

The Environmental Assessment Act is the most comprehensive piece of environmental legislation in Ontario. It is designed to ensure the proper weighting of environmental advantages and disadvantages of proposals, encompassing social, economic and cultural conditions as well as the natural environment.

The private sector faces certain constraints in meeting requirements of the EAA in the same manner as public sector proponents (e.g., they lack the power of expropriation). It is, therefore, desirable to clarify how the EAA requirements in their current form can be reasonably met by private sector proponents.

POLICY ON PRIVATE SECTOR EFW

The Government has designated major private sector EFW and waste incineration facilities under the EAA. The Act as currently administered requires that a reasonable range of alternatives be studied before an undertaking is selected. What is defined as reasonable is based on the inherent constraints of a given proponent's abilities vis-a-vis its planning process. This means that the Act can be applied in a consistent manner to private as well as public sector proposals.

PRIVATE SECTOR AND ENVIRONMENTAL ASSESSMENT ACT

The private sector can address the requirements of the Act.

a) Rationale

Private sector proponents must provide a rationale for their proposals, but such a rationale might legitimately include the opportunity to establish a profitable enterprise. Private sector proponents are entitled to take financial risks.

b) Consideration of Alternatives to the Undertaking

The Act is intended to ensure that reasonable alternatives to a given undertaking are considered. This encourages serious consideration and environmental evaluation of viable alternatives. But, proponents are entitled to determine what is reasonable for their planning process and to decide among equally acceptable alternatives. A rationale for why alternatives were or were not chosen, and description of the effects associated with the viable alternatives is necessary.

Example: Small municipalities possess more limited resources than larger ones and therefore are not normally required to consider as broad a range of waste management alternatives but only those that are reasonable based on the environmental evaluation.

c) Consideration of Alternative Sites

Private sector proponents will be expected to consider only those sites which are reasonable and reasonably available, given the nature of the proposed undertaking. In many cases, the siting alternatives of a given private sector proposal may be narrowed because of the location of a selected customer, sources of raw materials, availability of sites, or a required distribution system.

Example: Ontario Hydro considered only one site for its mobile PCB destruction facility because of the location of the material.

d) Consideration of Alternative Technologies

The Act encourages consideration of alternative technologies and methods for achieving a given undertaking. This is standard planning practice which is done by many private sector firms on a regular basis (i.e., good corporate planning). However, the final choice rests with the proponent and, in the absence of a markedly superior technology, is likely to be a choice among a range of equally acceptable alternatives. Again, a rationale for the choice of alternatives, and descriptions of the effects should be provided, as outlined by subsection 5(3) of the Act.

CONCLUSION

The EA Act is an essential means of safeguarding Ontario's environment. It is clear that the requirements of this Act can be met by private sector proponents in a reasonable and efficient manner. In many cases the assessment process may be similar to the type of planning already done in the waste management sector.

The Act requires a reasonable planning effort, taking into consideration the proponent's nature, aims, resources and capabilities. Provided a reasonable planning effort is made, the Ministry will support a document as meeting the requirements of the Act, whether the decision is made by the Minister or a hearing board.

APPENDIX E

Excerpts from Joint Board Decision
on the Proposed Energy
from Waste Facility - An Undertaking
by SNC Inc. in the
Regional Municipality of Peel,
October 24, 1988

REASONS FOR DECISION

Introduction

The central issue before the Joint Board is whether approval should be given for the construction and operation of an Energy from Waste (EFW) facility, in the City of Brampton, which would incinerate municipal solid waste (MSW) from the Regional Municipality of Peel to produce energy as electricity for sale to Ontario Hydro or as steam for sale to an industrial user. All of the applications deal with the approvals necessary for this undertaking under existing provincial legislation.

When the hearing began on November 2, 1987, the EFW facility was to be constructed and operated by the Petro-Sun International/SNC Consortium. Petro-Sun International Ltd., comprising 50% of the Consortium, was a public company specializing in the development of the technologies and the manufacturing and marketing of equipment for the alternate energy market. SNC Inc., also a public company, comprised the other half of the Consortium. SNC Inc. has been involved for many years in hydro generation projects and, more recently, in the alternate energy, waste management and resource recovery fields.

The Board learned early in 1988 that Petro-Sun was experiencing financial difficulties. In response to concerns expressed by the Region of Peel and the Coalition,

and shared by the Board, counsel for the proponent was requested to clarify the situation. Executive officers of SNC Inc. appeared before the Board on February 10, 1988 to give evidence of their intentions, financial capabilities and experience to take over the Consortium's application, the commitments given in the environmental assessment and at the hearing, and the undertaking itself, if Petro-Sun were to become unable to continue.

In March 1988 the Board was informed that Petro-Sun had been declared bankrupt and SNC had become the sole proponent for the application.

The proposed EFW facility would be located on a 6.27 hectare site in the Parkway Belt West in the City of Brampton, on the west side of Bramalea Road approximately 1200 metres south of Steeles Avenue and immediately south of the proposed Highway 407. There is an industrial park across Bramalea Road to the east and the Brampton Transformer Station abuts the southern boundary. The site is one of several identified as possible locations for an EFW facility by the Region of Peel in its Waste Management Plan. The Region identified the potential for a plant on this site to supply energy to industries, notably the Domtar Packaging Plant located in the industrial park.

The Region of Peel has negotiated a draft agreement with the proponent which will be signed, if approved, by the Region and the SNC operations company (yet to be formed). The

agreement would extend over the 20 year operating life of the plant and would commit the Region to deliver an adequate supply of acceptable solid waste to the facility. The contract also describes the obligations of the Region and the Operator with respect to financial commitments, operating standards and environmental monitoring and controls. The agreement requires that the facility be constructed in conformity with the approvals necessary under the Environmental Protection Act (EPA) and the Environmental Assessment Act (EAA). It also requires the plant to be operated and maintained in conformity with any terms and conditions of approvals given under the EPA and EAA and in conformity with the terms of the agreement itself.

The proposed facility will incinerate 364 tonnes per day of "acceptable waste", which is defined by the draft agreement to be all solid waste, garbage, trash, rubbish and refuse which is normally collected in accordance with municipal by-laws, from sources only in the Region of Peel. Oversized items, unbundled branches, tree trunks and non-combustibles, including construction materials and demolition debris, are excluded from the facility. Most of the acceptable waste will be delivered to the plant by refuse packer trucks under contract with the area municipalities for garbage pick-up. The area within the Region of Peel to be serviced by the EFW facility has not been defined.

Waste will be dumped inside the plant onto the tipping floor which will be large enough to accommodate the daily intake

of waste as well as to provide storage for sufficient waste for the operation of the plant over weekends and holidays. There will be no outside storage of waste. Since all of the air needed for combustion is drawn from inside the facility, the proponent maintained that the negative pressure thus created would prevent the escape of odour, dust or litter to the outside.

The proposed EFW facility can process up to 450 tonnes per day through "fuel enhancement equipment" which will remove approximately 40 tonnes per day of metals, glass and grit from the waste before incineration. Evidence is that this system will increase the heating value of the waste, decrease the amount of ash residue, and reduce the metal concentrations in ash residues and air emissions. A senior official from SNC told the Board the fuel enhancement system will also present a business opportunity to develop markets for the sale of recovered materials.

Incineration of the enhanced fuel will take place in four modular, two-stage, controlled-air combustion incinerators, each of which will have a rated capacity of 91 tonnes per day. The proposed modular incinerators described in the environmental assessment have been developed and manufactured by Consumat Systems Inc.

The waste is burned in the primary chamber at temperatures of 620°C to 730°C under starved air conditions which pyrolyze the waste to produce combustion gases which pass to

the secondary chamber. The burnt residue from the primary chamber, the bottom ash, is discharged into a quench tank.

In the secondary chamber the combustion gases are mixed with excess air and burned at 1,000°C with a minimum retention time of 1 second.

The flue gases are drawn from the secondary chamber through a manifold to waste heat recovery boilers and economizers and then to the air pollution control systems and subsequently to the stack.

Steam from the boilers will provide the energy to a steam turbine which will generate electricity for sale to Ontario Hydro. A second steam turbine will generate electricity for the EFW plant itself. The proponent wants to retain the option of generating steam for sale to Domtar Inc. in the event that market forces create that opportunity.

The air pollution control system was described by the applicant and the manufacturer, Flakt Canada, as being state of the art technology.

There would be two sets of air pollution control equipment, each sized to accommodate the flue gases from three of the four incinerators, if necessary. Each system comprises: a gas conditioning tower, which provides a mixing zone for the injection of lime and moisture into the flue gas stream to remove acid gases and trace organics; a fabric filter baghouse which removes particles from the flue gases; and an

induced draft fan which draws the gases through the system. Both air pollution control systems will discharge through one stack which will rise for 36.3 metres (m) above grade.

Dust collected by the baghouses and flyash from the conditioning towers are collected in separate hoppers at the base of each unit.

Approvals Necessary

The proponent, SNC Inc., must obtain the following approvals:

1. the acceptance of the environmental assessment, pursuant to the requirements of the Environmental Assessment Act (EAA);
2. the approval to proceed with the undertaking, pursuant to the requirements of the EAA;
3. a decision granting a certificate of approval for the establishment and operation of a waste disposal site, pursuant to the requirements of the Environmental Protection Act (EPA), Section 27(b);
4. an Order amending the Official Plan of the City of Brampton, pursuant to the requirements of the Planning Act, 1983, Sections 17 and 22;
5. an Order amending the zoning by-law of the City of Brampton, pursuant to the requirements of the Planning Act, 1983, Section 34; and

outset of the hearing. His primary concern throughout centred on the calorific heating values of the waste and the possibility that commercial-industrial waste would be a more efficient fuel for the incinerators. At the conclusion of the hearing, Mr. Boldrini took a position in support of the application.

Counsel for Ontario Hydro appeared briefly at the outset of the hearing but did not participate in the process. Counsel for the Ministry of Municipal Affairs attended the preliminary meeting and hearing as an observer. A number of citizens made submissions to the Board at a specifically designated afternoon sitting and at two evening sessions. Their main concerns were for the possibility of: adverse effects of air emissions from the incinerator on human health and the environment; odours, dust and noise; a reduction in property values; and the negative impact of the EFW facility on Peel's recycling program.

Public Consultation Program

The public consultation program began in October, 1984 when Peel hosted a public meeting to discuss the concept of energy from waste. Over the next 3 years Peel hosted a number of public meetings in respect of its Waste Management Master Plan and the Petro Sun/SNC proposal.

The proponent also conducted a public information and consultation program beginning in the spring of 1986. The

details of the program and the responses are documented in the Environmental Assessment. Notice of the meetings and workshops was given by newspaper advertisements, pamphlets and direct mailing to groups and individuals known to have a potential interest in the proposed facility.

The evidence of the proponent was that the environmental assessment addressed the concerns raised by members of the public and government representatives during the planning stages.

The three groups represented by the Coalition were specifically invited to participate in the program. Although the two local groups did not attend the meetings, they did make their concerns known to the applicant. Pollution Probe, the third member group of the Coalition, did not attend the meetings sponsored by the proponent nor did it identify its concerns during the public consultation program.

The Board is of the view that the public consultation program was adequate. The Board also believes it is unfortunate that Pollution Probe, with its long history of intensive research into the problems associated with the incineration of waste, did not participate in the public consultation program. Its participation, in all probability, would have enhanced the planning process and assisted in the resolution of some of the issues.

The Board has thoroughly examined the evidence and arguments put before it and has come to the following conclusions:

The EAA requires the proponent of an undertaking to which the Act applies to follow a planning process which must be documented in the environmental assessment. An examination of the thoroughness of the planning process should not become a semantical argument or a debate of stereotypical concepts but should be a practical and pragmatic evaluation to determine whether the proposal can be implemented while fulfilling the purpose of the Act.

The overall purpose of a private proponent is business for gain and the environmental assessment should describe and evaluate the environmental impact of its profit making activities. The proposed activities should be included in the description of the undertaking. If the description of the undertaking is accurately formulated then the purposes of that undertaking will naturally follow.

The Board believes that the undertaking should be described with care and in language that the public understands. In this case the proponent stated that the application for approval under the EAA was:

"for the undertaking of constructing and operating a resource recovery from waste facility and associated energy distribution system."

(Exhibit 5, page 1)

Seemingly the description is of 2 activities, resource recovery and energy distribution (energy production is implied). The government agencies and the public understood that the project included the burning of waste and the production of energy and their concerns focussed on the impact of the proposed waste recovery system. Indeed, the Minister's statement of March 18, 1987 includes the following:

"Energy from waste facilities represent an alternative to both landfill and conventional sources of energy, but concerns about health and environmental effects require comprehensive evaluation prior to environmental approval."

(Exhibit 22, page 164)

Also, the Board notes that the fact that the proponent has applied for a certificate of approval under the Environmental Protection Act (EPA) for a waste disposal site (processing) indicates that one of the functions of the project is waste management.

If the undertaking were not properly described and the public thus misinformed the environmental assessment would be considered unacceptable. In this case, the Board believes the undertaking was accurately described.

The purpose, relating to the functions of the undertaking, should have been described to be two-fold, to dispose of waste and to produce energy.

The requirements for the description of the undertaking and the purpose of the undertaking should be consistent for private and public sector proponents. In this instance, the proponent is implementing part of Peel's Master Plan and is, in effect, the agent of the Municipality. To accept the suggestion that the proponent's business mandate alone should determine the definition of the purpose of an undertaking could, in the Board's view, lead to such narrow definitions of purpose as to render the EAA process meaningless. Municipalities would be encouraged to contract out their contentious projects to avoid the requirements of the government approvals process.

The identification of alternatives to the undertaking should be determined by the purpose of the functions of the undertaking, not by the purpose of the business aims of the private proponent. When alternatives have been identified, the proponent may wish to discard those alternatives which are not within its business mandate or capabilities to implement for economic reasons.

In this instance the Board finds that the proponent identified appropriate alternatives to the energy production function of the undertaking but not to the waste disposal function of the undertaking. The MOE review team seemed to agree with this conclusion when it stated in July 1987, under the title "Alternatives to the Undertaking", that:

"The proponent should make reference to the Region of Peel's draft master plan in terms of

waste management practices and tie the present study into the Peel study. It is the Ministry's opinion that EFW's must be evaluated on a case by case basis relating the relative merits of landfill versus incineration".

(Exhibit 22, page 84)

On August 27, 1987 the MOE wrote:

"We find the environmental assessment document incomplete since it does not address the impact the undertaking would have on the Regional Municipality of Peel's waste reduction program."

(Exhibit 22, page 90)

Information regarding alternatives to the EFW waste management system was compiled by the Region in its draft Waste Management Master Plan (Exhibits 26, 27 and 28). Although the Plan is not before the Board a substantial amount of evidence relative to the Plan was put forward in these proceedings. Other waste management options were examined in detail through the evidence of the proponent and other parties in response to the concerns raised by the MOE during the Review and by the MOE, the Coalition and the public at the hearing.

In order to find the environmental assessment acceptable the Board must be satisfied that it fulfills the purpose of the EAA and it provides sufficient information upon which to make a decision on the merits of the undertaking. The Board finds that the environmental assessment document submitted to the Minister is inadequate for the reasons stated but

finds that the environmental assessment comprising all of the documentary and oral evidence admitted by the Board during the hearing provides sufficient evidence upon which to make a decision.

Therefore the Board finds the environmental assessment to be acceptable.

Waste Quantities and Composition

The key issues regarding the waste quantities and composition data used in the environmental assessment are whether the data is reliable and whether there will be sufficient quantities of waste with sufficient energy levels to keep the EFW facility operating efficiently without a reduction in the incentives for waste reduction, reuse and recycling.

Mr. David Merriman, of MacLaren Engineers Inc. who are consultants for the Region of Peel Waste Management Master Plan, gave evidence to the Board with respect to the Peel planning process for waste management. The Waste Management Master Plan data is the main source of waste quantity and composition data used in the environmental assessment process.

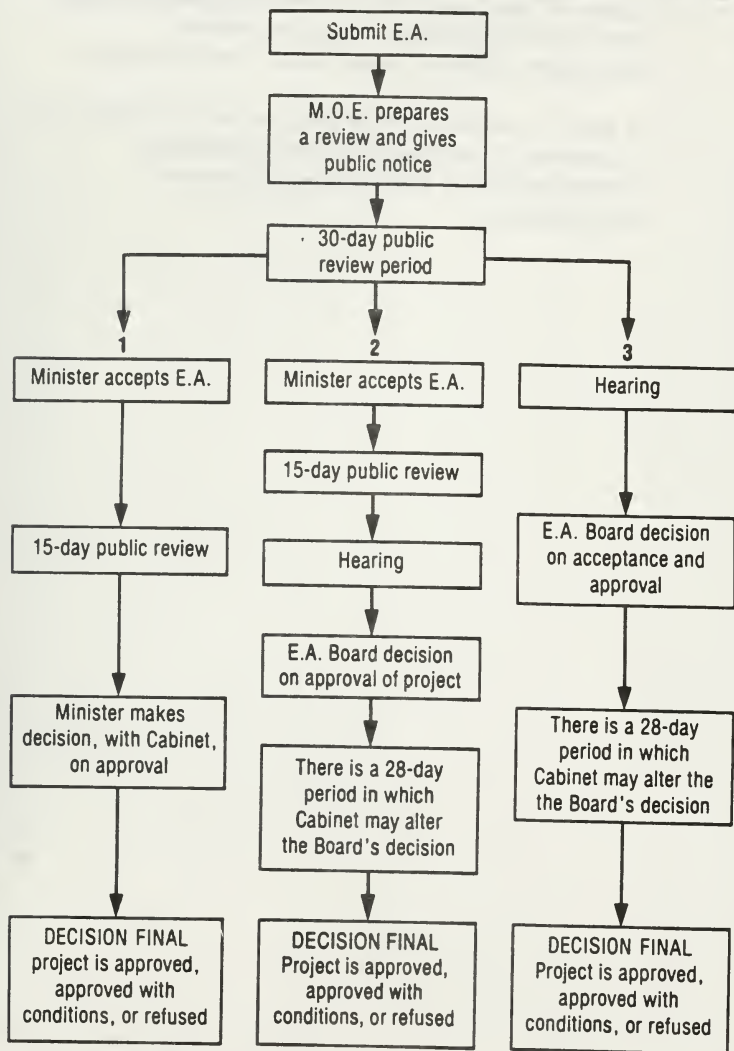
Peel's Waste Management Master Plan update, underway since May 1982, has reached Stage 3 of the process. The Stage 3 Preliminary Report (Exhibit 28) identifies the study period



APPENDIX F

Three Routes to Decision

THREE ROUTES TO DECISION



NOTE: E.A. refers to Environmental Assessment
M.O.E. refers to Ministry of the Environment

- ° Copies of this publication are available in french from the Environmental Assessment Branch, Environment Ontario, upon request (416-440-3450).
- ° On peut se procurer cette publication en français en s'adressant à la Direction des évaluations environnementales d'Environnement Ontario (416-440-3450).

